

CLAIMS

1. A coating and developing system comprising:
 - a coating unit for coating a surface of a substrate with a resist film;
 - a developing unit for processing the substrate processed by an immersion exposure process that forms a liquid film on the surface of the resist film for immersion exposure by a developing process using a developer;
 - an inspection unit including a substrate support device for supporting the exposed substrate and a liquid detector capable of detecting at least a liquid used for forming the liquid film and adhering to the surface of the substrate supported by the substrate support device;
 - a controller for determining whether or not the substrate needs to be processed by a drying process on the basis of a result of detection made by the liquid detector; and
 - a drying means for drying the substrate if the controller decides that the substrate needs to be processed by a drying process.
2. The coating and developing system according to claim 1, wherein the controller has a function to send a signal indicating an abnormal state to an exposure system processed the substrate by immersion exposure when the result of detection made by the liquid detector indicates an abnormal state.
3. The coating and developing system according to claim 1, wherein the controller has a function to determine drying conditions for drying the substrate on the basis of the result of detection made by the liquid detector and to control drying operations of the drying means on the basis of the drying conditions.
- 4 The coating and developing system according to any one of claims 1 to 3 further comprising a heating unit for processing the exposed substrate by a heating process before the exposed substrate is subjected to a developing process; wherein the liquid adhering to the surface of the substrate is

detected at least before the substrate is subjected to the drying process.

5. The coating and developing system according to any one of claims 1 to 3 further comprising:

- a processing block including the coating unit and the developing unit; and

- an interface block disposed contiguously with the processing block and connected to an exposure system for processing the substrate by an immersion exposure process;

- wherein the inspection unit and the drying means are included in the interface block.

6. The coating and developing system according to claim 5 further comprising:

- a first substrate carrying device for carrying the substrate between the processing block and the interface block; and

- a second carrying device for carrying the substrate between the interface block and the exposure system;

- wherein the substrate support device of the inspection unit serves also as a transfer device on which the substrate is placed when the substrate is transferred between the first and the second carrying device.

7. A coating and developing method of coating a surface of a substrate with a resist film and processing the substrate processed by an immersion exposure process that forms a liquid film on the surface of the resist film for immersion exposure by a developing process by a developer, said coating and developing method comprising the steps of:

- supporting the substrate by a substrate support device;

- detecting at least a liquid forming the liquid film formed on the substrate and adhering to the surface of the substrate by a liquid detector;

- determining whether or not the substrate needs to be dried on the basis of the result of detection made by the liquid detector; and

- drying the substrate by a drying means when it is decided that the substrate needs to be dried.

8. The coating and developing method according to claim 7, wherein the step of deciding whether or not the substrate needs to be dried includes sending a signal indicating an abnormal state to an exposure system processed the substrate by an immersion exposure process when the result of detection made by the liquid detector indicates an abnormal state.

9. The coating and developing method according to claim 7, wherein the step of deciding whether or not the substrate needs to be dried includes determining drying conditions for drying the substrate on the basis of the result of detection made by the liquid detector; wherein the drying means dries the substrate on the basis of the drying conditions.

10. The coating and developing method according to any one of claims 7 to 9 further comprising the step of processing the exposed substrate by a heating process before the substrate is subjected to the developing process; wherein the liquid adhering to the surface of the substrate is detected before the substrate is subjected to the heating process.